

What is claimed is:

1. A mobile toy vehicle, comprising:
only a single ground-contacting roller;
5 a weight rotatably coupled to the roller to permit rolling of the roller relative to the
weight about an axis of rotation; and
a member fixedly coupled to the weight during a use of the mobile toy vehicle,
wherein an upper portion of the member is positioned, during the use, higher than a topmost
portion of the single ground-contacting roller, and the member is counterweighted, during
10 the use, by the weight to provide a gravity-based restoring force sufficient for preventing
toppling of the member despite user-noticeable swaying of the member due to inertial forces
during rolling of the roller about the axis of rotation.
2. A mobile toy vehicle as described in claim 1, wherein the single ground-
15 contacting roller is more spherical than cylindrical in its external shape.
3. A mobile toy vehicle as described in claim 1, wherein the mobile toy vehicle
is a locomotive mobile toy vehicle and further includes a motor drive that rotates the weight
relative to the ground-contacting roller to obtain locomotion.
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4. A mobile toy vehicle as described in claim 3, wherein the weight comprises
at least a motor that is a portion of the motor drive.
5. A mobile toy vehicle as described in claim 1, wherein the mobile toy vehicle
25 is without a powered balance control system that balances the member by applying
rotational force to the roller and adjusting the rotational force multiple times per second via
circuitry-determined balancing adjustments.

6. A mobile apparatus for providing entertaining movement, comprising:
one or more ground-contacting rollers that have a common axis of rotation and that
substantially bear weight of the mobile apparatus, and no other ground-contacting roller that
5 substantially bears weight of the mobile apparatus;

a weight and a motor drive, the weight movably coupled to at least one of the one or
more ground-contacting rollers, and movable by the motor drive, to permit the at least one of
the one or more ground-contacting rollers to make multiple revolutions about the axis of
rotation without the weight making any full revolution about the axis of rotation; and
10 a member, a portion of which is positioned, during locomotion of the mobile
apparatus, higher than a topmost portion of the one or more ground-contacting rollers, the
member coupled to the weight and counterweighted by the weight to prevent the member
from toppling and touching ground, wherein position of the member is permitted to sway,
noticeably to a casual human observer, due to inertial forces.

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7. A mobile apparatus as described in claim 6, wherein the mobile apparatus
includes only one ground-contacting roller.

8. A mobile apparatus as described in claim 6, wherein the member extends
20 above the topmost portion of the ground-contacting roller by at least one third of rolling
radius of a ground-contacting roller having the uppermost point.

9. A mobile apparatus as described in claim 8, wherein the portion of the
member has horizontal width above the ground-contacting roller having the uppermost
25 point, the horizontal width being at least one fourth of the rolling radius of the ground-
contacting roller having the uppermost point

10. A mobile apparatus as described in claim 6, wherein the member has a humanoid or snow-man shape.

11. A mobile apparatus as described in claim 6, wherein the mobile apparatus is remote controlled by a human operator.

12. A mobile apparatus as described in claim 6, wherein the weight comprises at least a portion of the motor drive.

13. A mobile apparatus for providing entertaining movement, comprising:
an upper portion, at least a part of which is positioned higher than a locus, wherein the upper portion can sway relative to the locus;
a lower portion coupled to the upper portion, wherein the lower portion includes mass positioned lower than is the locus; and
a drive system for moving the mobile apparatus, the drive system coupled to the upper and lower portions and providing less stability of pitch or of roll for the upper portion when rolling across smooth level ground than would a rigid cart platform supported by four rolling rigid wheels centered at the corners of a top-view square, the wheels being at the ends of two equal parallel fixed axles spaced apart by at least half of a length of the mobile apparatus;
wherein a motion that causes a swaying of the upper portion relative to the locus also causes a displacing of the lower portion, whereby the displacing of the lower portion causes a gravity-derived return force, the gravity-derived return force being in a direction that counters the swaying of the upper portion.

14. A mobile apparatus as described in claim 13, wherein the drive system comprises at least one ground-contacting roller that revolves relative to the lower portion, and a motor drive that revolves the ground-contacting roller relative to the lower portion.

5 15. A mobile apparatus as described in claim 14, wherein the one ground-contacting roller revolves relative to the lower portion about an axis of rotation, and the swaying of the upper portion is a pivoting of the upper portion about the axis of rotation.

10 16. A mobile apparatus as described in claim 14, wherein the upper portion is fixedly connected to the lower portion during a locomotive run of the mobile apparatus.

17. A method for producing a mobile apparatus that is to have a roly-poly characteristic, the method comprising:

15 providing at least one roller that is to touch ground during use of the mobile apparatus and that is to substantially support weight of the mobile apparatus during the use; movably coupling a weight to the at least one roller, to permit the at least one roller to roll without also rolling the weight in lockstep;

coupling a member to the weight, wherein, during the use of the mobile apparatus, at least a portion of the member is to be positioned higher than a topmost portion of the at least one roller, and the member is to be counterweighted by the weight to prevent the member from toppling and touching ground, wherein position of the member is permitted to sway, noticeably to a casual human observer, due to inertial forces.

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18. A method as described in claim 17, wherein the coupling step comprises
25 fixedly connecting the member and the weight.

19. A method as described in claim 17, further comprising coupling a motor drive to at least the weight to cause the at least one roller to roll without also rolling the weight in lockstep, to thereby cause locomotion.